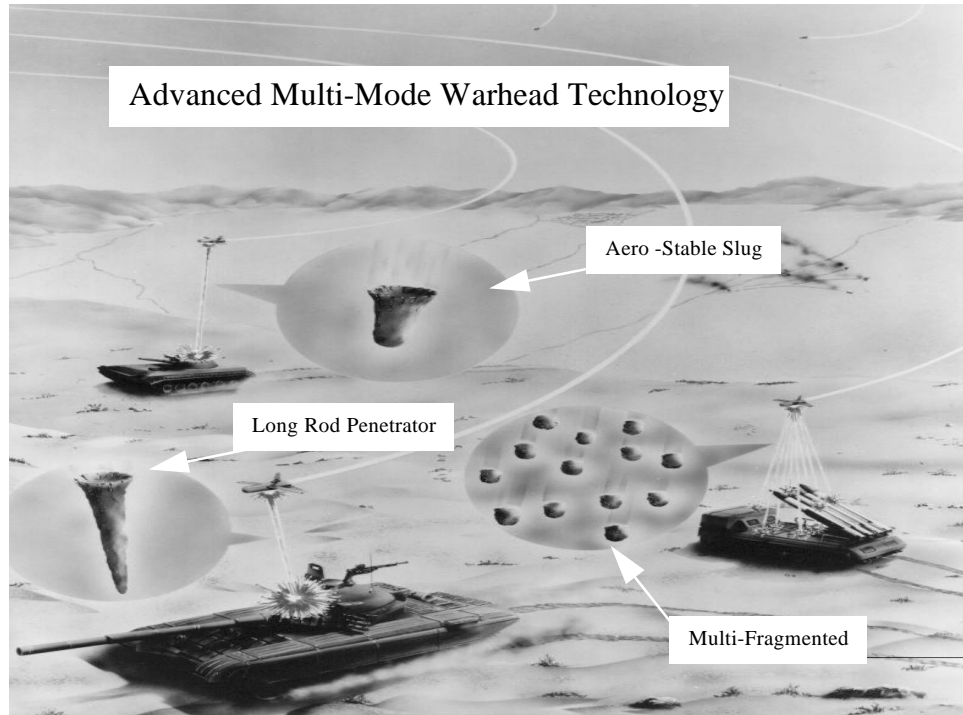


CONVENTIONAL ARMAMENT



VISIONS AND OPPORTUNITIES

During the first half of this decade, the United States saw an increase in regional conflicts, a proliferation in weapons of mass destruction, and an increased demand for our peacekeeping and humanitarian efforts. At the same time, our nation saw our force structure being reduced, and the development and production of new weapon systems being sharply curtailed. The net effect is the fact that we must do more with less. This realization has elevated the importance of the development of affordable and effective conventional weaponry.

The development of conventional weapons is increasingly important in today's environment due to the requirement to strike military targets while minimizing the loss to life and resources. Therefore, the development of versatile conventional weapons capable of destroying all types of

targets ranging from hardened, buried command facilities to mobile SCUD launchers is necessary to limit the need for nuclear weapons. Precision guidance systems are needed that allow our forces to surgically strike military targets thus reducing the risk to civilian populations and minimizing environmental damage. The Armament Directorate is committed to providing the research and development efforts that can provide the necessary conventional weaponry for our future Air Force needs.

Our vision is to pursue development of affordable, autonomous, all weather, precision guided weapons. The terminal seeker of today can obtain accuracies ranging from 30 to 3 feet circular error probable (CEP) at costs of \$150K and \$500K, respectively. A seeker with a near zero CEP

at a cost of under \$10K per unit in production quantities is our goal. Seekers with totally passive modes of operation or that emit low probability of intercept signals are being sought to enhance aircraft survivability. Work continues toward advancing processor design and algorithm development to simplify mission planning and to provide weapons capable of identifying the target being attacked. Together these works can lead to effective stand-off attack weapons with precision strike capabilities.

We envision using improved conventional weapons to defeat targets that were once only vulnerable to nuclear weapons. The continued development of munitions with deeper penetration and better blast/fragmenting capabilities is critical to place these targets at risk.

We also recognize that our technologies must be packaged for effective delivery from advanced weapon platforms. This requires incorporating our weapon airframe, carriage/release, and weapon integration expertise into the overall conventional weapon development process.

The reduction of our force structure means we must not only readdress our war fighting abilities but improve our methods of maintaining those abilities as well. This vision can be achieved by the continued

development of cheaper, safer, and more effective weapons that reduce logistic center inventories and weapon life cycle costs. Our multi-mode warhead technology will provide the ability to defeat a broad spectrum of antimateriel targets with a single warhead, therefore, reducing the number of unique weapons to be carried in the inventory.

The advancements in simulation and analysis techniques will enable us to reduce the cost of research, test, and acquisition of weapons while reducing the impact on the environment. New modeling and simulation capabilities allow for improved system and subsystem effectiveness comparisons eliminating the need for tests harmful to the environment. The need for expensive test facilities and equipment can be minimized as a result of advanced computational fluid dynamic codes performing the same analysis and evaluations. In addition, the development of advanced test instrumentation will allow the effective gathering of accurate data, reduce the amount of testing, and provide better performance predictions.

The development of highly effective and affordable conventional armament technologies for the Air Force is our vision. We obtained this vision by using the talented personnel and unique facilities available at the Armament Directorate, Eglin AFB.

This plan has been reviewed by all Air Force laboratory commanders/directors and reflects integrated Air Force technology planning. I request Air Force Acquisition Executive approval of the plan.

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